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Research:

"Buy Versus Build": Debt Aspects of Purchased-Power Agreements

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Credit Analyst: Jeffrey Wolinsky, CFA, New York (1) 212-
Dimitri Nikas, New York (1) 212-438-7807
Flintoff, London (44) 20-7826-3874; Lauri
Melbourne (61) 3-9631-2036

Standard & Poor's Ratings Services views electric utility purchased-power ag
as debt-like in nature, and has historically capitalized these obligations on a s
known as a "risk spectrum." Standard & Poor's applies a 0% to 100% "risk fac

present value (NPV) of the PPA capacity payments, and designates this amo equivalent.

While determination of the appropriate risk factor takes several variables into including the economics of the power and regulatory treatment, the overwhelr selecting a risk factor has been a distinction in the likelihood of payment by th *Specifically, Standard & Poor's has divided the PPA universe into two broad c* or-pay contracts (TOP; hell or high water) and take-and-pay contracts (TAP; p based). To date, TAP contracts have been treated far more leniently (e.g., a l applied) than TOP contracts since failure of the seller to deliver energy, or pe an attendant reduction in payment by the buyer. Thus, TAP contracts were de substantially less debt-like. In fact, the risk factor used for many *TAP obligatic* low as 5% or 10% as opposed to TOPs, which have been typically at least 50

Standard & Poor's originally published its purchased-power criteria in 1990, a 1993. Over the past decade, the industry underwent significant changes relat and acquired a history with regard to the performance and reliability of third-p In general, independent generation has performed well; the likelihood of nond release from the payment obligation--is low. As a result, Standard & Poor's be distinction between TOPs and TAPs is minimal, the result being that the risk f *will become more stringent.* This article reiterates Standard & Poor's views on power as a fixed obligation, how to quantify this risk, and the credit ramificatio power in light of updated observations.

Why Capitalize PPAs?

Standard & Poor's evaluates the benefits and risks of purchased power by purchasing utility's reported financial statements to allow for more meanin with utilities that build generation. Utilities that build typically finance constr *of debt and equity. A utility that leases a power plant has entered into a de* that facility; a capital lease appears on the utility's balance sheet as debt. A fixed commitment. When a utility enters into a long-term PPA with a fixed-c takes on financial risk. Furthermore, utilities are typically not financially cor risks they assume in purchasing power, as purchased power is usually rec dollar as an operating expense.

As electricity deregulation has progressed in some countries, states, and r has blurred between traditional utilities, vertically integrated utilities, and m companies, all of which are in the generation business. A common contrac emerged is the tolling agreement, which gives an energy merchant compa purchase power from a specific power plant. (see "Evaluating Debt Aspect Tolling Agreements," published Aug. 26, 2002). The energy merchant, or t responsible for procuring and delivering gas to the plant when it wants the power. The power plant operator must maintain plant availability and produ contractual heat rate. Thus, tolling contracts exhibit characteristics of both leases. However, tollers are typically unregulated entities competing in a c marketplace. Standard & Poor's has determined that a 70% risk factor sho the NPV of the fixed tolling payments, reflecting its assessment of the risks *toller, which are:*

- Fixed payments that cover debt financing of power plant (typically h about 70%),
- Commodity price of inputs,
- Energy sales (price and volume), and
- Counterparty risk.

Determining the Risk Factor for PPAs

Alternatively, most entities entering into long-term PPAs, as an alternative owning power plants, continue to be regulated utilities. Observations over high likelihood of performance on TAP commitments and, thus, the high lik utilities must make fixed payments. However, Standard & Poor's believes t integrated, regulated utilities are afforded greater protection in the recover compared with the recovery of fixed tolling charges by merchant generator reasons for this. First, tariffs are typically set by regulators to recover costs vertically integrated utilities continue to have captive customers and an obl At a minimum, purchased power, similar to capital costs and fuel costs, is as a cost of service.

As a generic guideline for utilities with PPAs included as an operating expe tariffs, Standard & Poor's believes that a 50% risk factor is appropriate for commitments (e.g. tenors greater than three years). This risk factor assum regulatory treatment, including recognition of the PPA in tariffs; otherwise a factor could be adopted to indicate greater risk of recovery. Standard & Po 50% risk factor to the capacity component of both TAP and TOP PPAs. Wl component is not broken out separately, we will assume that 50% of the pa capacity payment. Furthermore, Standard & Poor's will take counterparty r when considering the risk factor. If a utility relies on any individual seller fo portion of its energy needs, the risk of nondelivery will be assessed. To the energy is not delivered, the utility will be exposed to replacing this power, p market rates that could be higher than contracted rates and potentially not tariffs.

Standard & Poor's continues to view the recovery of purchased-power cos adjustment clause, as opposed to base tariffs, as a material risk mitigant. A quarterly adjustment mechanism would ensure dollar-for-dollar recovery of without having to receive approval from regulators for changes in fuel cost to base tariff treatment, where variations in volume sales could result in un demand is sluggish or contracting. For utilities in supportive regulatory juris precedent for timely and full cost recovery of fuel and purchased-power co of as low as 30% could be used. In certain cases, Standard & Poor's may risk factor of 10% to 20% for distribution utilities where recovery of certain stranded assets, has been legislated. Qualifying facilities that are blessed federal legislation may also fall into this category. This situation would be r utility that is transitioning from a vertically integrated to a disaggregated dis company. Still, it is unlikely that no portion of a PPA would be capitalized (under any circumstances.

The previous scenarios address how purchased power is quantified for a v integrated utility with a bundled tariff. However, as the industry transitions t and deregulation, various hybrid models have emerged. For example, a ut deregulated merchant energy subsidiary, which buys power and off-sells it utility. The utility in turn passes this power through to customers via a fuel- mechanism. For the merchant entity, a 70% risk factor would likely be appl TAP or tolling scheme. But for the utility, a 30% risk factor would be used. the appropriate treatment here? In part, the decision would be driven by th methodology for the family of companies. Starting from a consolidated per Standard & Poor's would use a 30% risk factor to calculate one debt equiv consolidated balance sheet given that for the consolidated entity the risk o ultimately be through the utility's tariff. However, if the merchant energy co deemed noncore and its rating was more a reflection of its stand-alone cre Standard & Poor's would impute a debt equivalent using a 70% risk factor sheet, as well as a 30% risk-adjusted debt equivalent to the utility. Indeed, purchases would be reflected for both companies if there were no ownersh This example is perhaps overly simplistic because there will be many varia

theme. However, Standard & Poor's will apply this logic as a starting point, analysis case-by-case, commensurate with the risk to the various participa

Adjusting Financial Ratios

Standard & Poor's begins by taking the NPV of the annual capacity payme of the contract. The rationale for not capitalizing the energy component, ev also a nondiscretionary fixed payment, is to equate the comparison betwe buy versus build--i.e., Standard & Poor's does not capitalize utility fuel con where the capacity and energy components of the fixed payment are not s the fixed payment is used as a proxy for the capacity payment. The discou determine the debt equivalent, the NPV is multiplied by the risk factor. The is added to a utility's reported debt to calculate adjusted debt. Similarly, St imputes an associated interest expense equivalent of 10%--10% of the del added to reported interest expense to calculate adjusted interest coverage affected include debt as a percentage of total capital, funds from operation pretax interest coverage, and FFO interest coverage. Clearly, the higher th greater the effect on adjusted financial ratios. When analyzing forecasts, th PPA will typically decrease as the maturity of the contract approaches.

Utility Company Example

To illustrate some of the financial adjustments, consider the simple examp Co. buying power from XYZ Independent Power Co. Under the terms of th payments made by ABC Utility start at $90 million in 2003 and rise 5% per contract's expiration in 2023. The NPV of these obligations over the life of discounted at 10% is $1.09 billion. In ABC's case, Standard & Poor's chos factor, which when multiplied by the obligation results in $327 million. Tabl adjustment to ABC's capital structure, where the $327 million debt equival debt, causing ABC's total debt to capitalization to rise to 59% from 54% (1 2 shows that ABC's pretax interest coverage was 2.6x, without adjusting fc sheet obligations. To adjust for the XYZ capacity payments, the $327 millic adjustment is multiplied by a 10% interest rate to arrive at about $33 millio amount is added to both the numerator and the denominator, adjusted pre coverage falls to 2.3x.

Table 1 ABC Utility Co. Adjustment to Capital Structure

	Original capital structure		Adjusted capital structure	
	$	%	$	%
Debt	1,400	54	1,400	48
Adjustment to debt	-	-	327	11
Preferred stock	200	8	200	7
Common equity	1,000	38	1,000	34
Total capitalization	2,600	100	2,927	100

[x] TSV

Table 2 ABC Utility Co. Adjustment to Pretax Interest Coverage

		Original pretax interest coverage (x)		Adjusted pretax interest
Net income	120			
Income taxes	65	300		(300+33)

Interest expense	115	115	= 2.6x	(115+33)	
Pretax available	300				

[x] TSV

Credit Implications

The credit implications of the updated criteria are that Standard & Poor's n historical risk factors applied to TAP contracts with favorable recovery mec insufficient to capture the financial risk of these fixed obligations. Indeed, it where 5% and 10% risk factors were applied, the change in adjusted finan unadjusted) was negligible and had no effect on ratings. Standard & Poor's probability of energy delivery and attendant payment warrants recognition equivalent when capitalizing PPAs. Standard & Poor's will attempt to ident more vulnerable to modifications in purchased-power adjustments. Utilities financial adjustments by recognizing purchased power as a debt equivaler incorporating more common equity in their capital structures. However, Sta aware that utilities have been reluctant to take this action because many re recognize the necessity for, and authorize a return on, this additional wedg equity. Alternatively, regulators could authorize higher returns on existing c provide an incentive return mechanism for economic purchases. Notwithst unsupportive regulators, the burden will still fall on utilities to offset the fina associated with purchases by either qualitative or quantitative means.